

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/526,120A
Source: PT
Date Processed by STIC: 6/26/06

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PCT

RAW SEQUENCE LISTING

DATE: 06/26/2006

PATENT APPLICATION: US/10/526,120A

TIME: 13:35:09

Input Set : A:\10_526,120 - Sequence Listing.ST25.txt

Output Set: N:\CRF4\06262006\J526120A.raw

3 <110> APPLICANT: National University of Singapore
 4 Chua, Kaw Yan
 5 Liew, Lip Nyin
 7 <120> TITLE OF INVENTION: Recombinant Nucleic Acid Useful for Inducing Protective
 Immune Response Against Allergens
 8
 10 <130> FILE REFERENCE: 11747.105002 NUS002
 12 <140> CURRENT APPLICATION NUMBER: 10/526,120A
 13 <141> CURRENT FILING DATE: 2005-02-28
 15 <150> PRIOR APPLICATION NUMBER: PCT/SG03/00205
 16 <151> PRIOR FILING DATE: 2003-08-29
 18 <160> NUMBER OF SEQ ID NOS: 52
 20 <170> SOFTWARE: PatentIn version 3.3
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 216
 24 <212> TYPE: DNA
 25 <213> ORGANISM: Artificial
 27 <220> FEATURE:
 28 <223> OTHER INFORMATION: synthetic oligonucleotide encoding for the leader sequence,
 the
 29 transmembrane and cytoplasmic tail of Mus musculus LAMP-1,
 30 containing Nhe I site 3' of the LAMP-1 leader sequence and Nde I
 31 site 5' of the LAMP-1 transmembrane and cytop
 33 <400> SEQUENCE: 1
 34 ctcgagccac catggccgcc cccggcgccc ggaggcccct gctcctgctg ctgctggcag 60
 36 gccttgacaca tggcgctagc gaattcccg ggatccatat gttgatcccc attgctgtgg 120
 38 gcggtgccct ggcagggctg gtccctcatcg tcctcatcgc ctacctcatt ggcaggaaga 180
 40 ggagtcacgc cggctatcag accatctagc ggccgc 216
 43 <210> SEQ ID NO: 2
 44 <211> LENGTH: 234
 45 <212> TYPE: DNA
 46 <213> ORGANISM: Artificial
 48 <220> FEATURE:
 49 <223> OTHER INFORMATION: chimeric gene that encodes the Mus musculus LAMP-1 leader
 50 sequence, the Blo t5 gene fragment for the H-2d-restricted Th
 51 epitope and the Mus musculus LAMP-1 transmembrane and cytoplasmic
 52 domain
 54 <400> SEQUENCE: 2
 55 atggccgccc cggcgccccg gaggcccctg ctccctgctgc tgctggcagg ccttgccat 60
 57 ggcgctagcg cagaattgca agagaaaatc attcgagAAC ttgatgttgt ttgcgccatg 120
 59 aatatgttga tccccattgc tgtgggcggg gccctggcag ggctggtcct catcgtcctc 180
 61 attgcctacc tcattggcag gaagaggagt cagcggcgct atcagaccat ctag 234
 64 <210> SEQ ID NO: 3
 65 <211> LENGTH: 534

66 <212> TYPE: DNA

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67 <213> ORGANISM: Artificial
69 <220> FEATURE:
70 <223> OTHER INFORMATION: chimeric gene that encodes the Mus musculus LAMP-1 leader
71     sequence, the entire Blo t 5 gene product and the Mus musculus
72     LAMP-1 transmembrane and cytoplasmic domain
74 <400> SEQUENCE: 3
75 atggcgcccc ccggcgcccc gagggcccctg ctctgtgtgc tgctggcagg ccttgccacat      60
77 ggcgctagcc aagagcacaa gccaaagaag gatgatttcc gaaacgaatt cgatcacttg      120
79 ttgatcgaac aggcaaacca tgctatcgaa aaggggagaac atcaattgct ttacttgcaa      180
81 caccaactcg acgaattgaa tgaaaacaag agcaaggaat tgcaagagaa aatcattcga      240
83 gaacttgatg ttgtttgcgc catgatcgaa ggagcccaag gagctttgga acgtgaattg      300
85 aagcgaactg atcttaacat tttggaacga ttcaactacg aagaggctca aactctcagc      360
87 aagatcttgc ttaaggattt gaaggaaacc gaacaaaaag tgaaggatat tcaaacccaa      420
89 aatatgttga tcccatttgc tgtgggcggt gccctggcag ggctggctct catcgtctct      480
91 atcgccctacc tcattggcag gaagaggagt cacgcgggct atcagaccat ctag          534
94 <210> SEQ ID NO: 4
95 <211> LENGTH: 420
96 <212> TYPE: DNA
97 <213> ORGANISM: Artificial
99 <220> FEATURE:
100 <223> OTHER INFORMATION: chimeric gene that encodes the Mus musculus LAMP-1 leader
101     sequence and the entire Blo t 5 gene product
103 <400> SEQUENCE: 4
104 atggccgccc ccggcgcccc gagggcccctg ctctgtgtgc tgctggcagg ccttgccacat      60
106 ggcgctagcc aagagcacaa gccaaagaag gatgatttcc gaaacgaatt cgatcacttg      120
108 ttgatcgaac aggcaaacca tgctatcgaa aaggggagaac atcaattgct ttacttgcaa      180
110 caccaactcg acgaattgaa tgaaaacaag agcaaggaat tgcaagagaa aatcattcga      240
112 gaacttgatg ttgtttgcgc catgatcgaa ggagcccaag gagctttgga acgtgaattg      300
114 aagcgaactg atcttaacat tttggaacga ttcaactacg aagaggctca aactctcagc      360
116 aagatcttgc ttaaggattt gaaggaaacc gaacaaaaag tgaaggatat tcaaacccaa      420
119 <210> SEQ ID NO: 5
120 <211> LENGTH: 849
121 <212> TYPE: DNA
122 <213> ORGANISM: Artificial
124 <220> FEATURE:
125 <223> OTHER INFORMATION: chimeric gene that encodes the Mus musculus LAMP-1 leader
126     sequence, the entire Der p 1 gene product and the Mus musculus
127     LAMP-1 transmembrane and cytoplasmic domain
129 <400> SEQUENCE: 5
130 atggccgccc ccggcgcccc gagggcccctg ctctgtgtgc tgctggcagg ccttgccacat      60
132 ggcgctagca ctaacgcctg cagtatcaat ggaaatgctc cagctgaaat cgatttgcca      120
134 caaatgcgaa ctgtcactcc cattcgatg caaggaggct gtggttcatt ttgggctttc      180
136 tctggtgttg ccgcaactga atcagcttat ttggcttacc gtaatcaatc attggatctt      240
138 gctgaacaag aattagtcga ttgtgcttcc caacacggtt gtcattggtga taccattcca      300
140 cgtggtattg aatacatcca acataatggt gtcgtccaag aaagctacta tcgatacgtt      360
142 gcacgagaac aatcatgccg acgaccaaatt gcacaacgtt tcggtatctc aaactattgc      420
144 caaatttacc caccaaatgt aaacaaaatt cgtgaagctt tggctcaaac ccacagcgct      480
146 attgccgtca ttattggcat caaagattta gacgcattcc gtcattatga tggccgaaca      540
148 atcattcaac gcgataatgg ttaccaacca aactatcacg ctgtcaacat tgttggttac      600

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150 agtaacgcac aaggtgtcga ttattggatc gtacgaaaca gttgggatac caattggggg 660
152 gataatgggtt acggttattt tgctgccaac atcgatttga tgatgattga agaatatcca 720
154 tatgttgtca ttctcaatat gttgatcccc attgctgtgg gcggtgccct ggcagggctg 780
156 gtctcatcgc tctcatcgc ctacctcatt ggcaggaaga ggagtcacgc cggctatcag 840
158 accatctag 849
161 <210> SEQ ID NO: 6
162 <211> LENGTH: 879
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial
166 <220> FEATURE:
167 <223> OTHER INFORMATION: chimeric gene that encodes the Homo sapiens tissue
plasminogen
168     activator leader sequence, the entire Der p 1 gene product and
169     the Mus musculus LAMP-1 transmembrane and cytoplasmic domain
171 <400> SEQUENCE: 6
172 atggatgcaa tgaagagagg gctctgctgt gtgctgctgc tgtgtggagc agtcttcggt 60
174 tcgcccagcc aggttggtgt gcaggacccc tgtgtccgc ccctcaccaa cgctgcagc 120
176 atcaacggca atgccccgc tgagattgat ctgcgccaga tgaggaccgt gactcccatc 180
178 cgcattgcaa gcggtgcgg gtcttggttg gccttctcag gcgtggccgc gaccgagtc 240
180 gcatacctcg cgtatcggaa tcagagcctg gacctcgtg agcaggagct cgttgactgc 300
182 gcctcccaac acggatgtca tggggatacg attcccagag gtatcgaata catccagcat 360
184 aatggcgctg tgcaggaaag ctattaccga tacgtagcta gggagcagtc ctgccgccgt 420
186 cctaacgccc agcgcttcgg catttccaac tattgccaga tctaccccc taatgtgaac 480
188 aagatcaggg aggccctggc gcagacgcac agcgccatcg ctgtcatcat cggaatcaag 540
190 gatctggacg cattccggca ctatgacggg cgcacaatca tccagcgcca caacggatac 600
192 cagccaaact atcacgcgt caacatcgtg ggtaactcga acgcccaggg ggtggactac 660
194 tggatcgtgc ggaacagttg ggacaccaac tggggcgaca acggctacgg ctactttgcc 720
196 gccaacatcg acctgatgat gatcgaagag taccgtaacg tggatgacct gttgatcccc 780
198 attgctgtgg gcggtgccct ggcagggctg gtctcatcgc tctcattgc ctacctcatt 840
200 ggcaggaaga ggagtcacgc cggctatcag accatctag 879
203 <210> SEQ ID NO: 7
204 <211> LENGTH: 26
205 <212> TYPE: PRT
206 <213> ORGANISM: Rattus norvegicus LIMP II Leader peptide
208 <400> SEQUENCE: 7
210 Met Ala Arg Cys Cys Phe Tyr Thr Ala Gly Thr Leu Ser Leu Leu Leu
211 1           5           10           15
214 Leu Val Thr Ser Val Thr Leu Leu Val Ala
215           20           25
218 <210> SEQ ID NO: 8
219 <211> LENGTH: 46
220 <212> TYPE: PRT
221 <213> ORGANISM: Rattus norvegicus LIMP II Transmembrane cytoplasmic
W--> 222 domain
224 <400> SEQUENCE: 8
226 Leu Ile Val Thr Asn Ile Pro Tyr Ile Ile Met Ala Leu Gly Val Phe
227 1           5           10           15
230 Phe Gly Leu Ile Phe Thr Trp Leu Ala Cys Arg Gly Gln Gly Ser Thr
231           20           25           30
234 Asp Glu Gly Thr Ala Asp Glu Arg Ala Pro Leu Ile Arg Thr

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Input Set : A:\10_526,120 - Sequence Listing.ST25.txt

Output Set: N:\CRF4\06262006\J526120A.raw

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235          35          40          45
238 <210> SEQ ID NO: 9
239 <211> LENGTH: 26
240 <212> TYPE: PRT
241 <213> ORGANISM: Homo sapiens LIMP II Leader peptide
243 <400> SEQUENCE: 9
245 Met Gly Arg Cys Cys Phe Tyr Thr Ala Gly Thr Leu Ser Leu Leu Leu
246 1          5          10          15
249 Leu Val Thr Ser Val Thr Leu Leu Val Ala
250          20          25
253 <210> SEQ ID NO: 10
254 <211> LENGTH: 46
255 <212> TYPE: PRT
256 <213> ORGANISM: Homo sapiens LIMP II Transmembrane cytoplasmic domain
258 <400> SEQUENCE: 10
260 Leu Ile Ile Thr Asn Ile Pro Tyr Ile Ile Met Ala Leu Gly Val Phe
261 1          5          10          15
264 Phe Gly Leu Val Phe Thr Trp Leu Ala Cys Lys Gly Gln Gly Ser Met
265          20          25          30
268 Asp Glu Gly Thr Ala Asp Glu Arg Ala Pro Leu Ile Arg Thr
269          35          40          45
272 <210> SEQ ID NO: 11
273 <211> LENGTH: 26
274 <212> TYPE: PRT
275 <213> ORGANISM: Mus musculus LIMP II Leader peptide
277 <400> SEQUENCE: 11
279 Met Gly Arg Cys Cys Phe Tyr Thr Ala Gly Thr Leu Ser Leu Leu Leu
280 1          5          10          15
283 Leu Val Thr Ser Val Thr Leu Leu Val Ala
284          20          25
287 <210> SEQ ID NO: 12
288 <211> LENGTH: 46
289 <212> TYPE: PRT
290 <213> ORGANISM: Mus musculus LIMP II Transmembrane cytoplasmic domain
292 <400> SEQUENCE: 12
294 Leu Val Val Thr Asn Ile Pro Tyr Ile Ile Met Ala Leu Gly Val Phe
295 1          5          10          15
298 Phe Gly Leu Val Phe Thr Trp Leu Ala Cys Arg Gly Gln Gly Ser Met
299          20          25          30
302 Asp Glu Gly Thr Ala Asp Glu Arg Ala Pro Leu Ile Arg Thr
303          35          40          45
306 <210> SEQ ID NO: 13
307 <211> LENGTH: 27
308 <212> TYPE: PRT
309 <213> ORGANISM: Homo sapiens DEC-205 Leader peptide
311 <400> SEQUENCE: 13
313 Met Arg Thr Gly Trp Ala Thr Pro Arg Arg Pro Ala Gly Leu Leu Met
314 1          5          10          15
317 Leu Leu Phe Trp Phe Phe Asp Leu Ala Glu Pro

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318          20          25
321 <210> SEQ ID NO: 14
322 <211> LENGTH: 56
323 <212> TYPE: PRT
324 <213> ORGANISM: Homo sapiens DEC-205 Transmembrane cytoplasmic domain
326 <400> SEQUENCE: 14
328 Tyr Thr Ala Ile Ala Ile Ile Val Ala Thr Leu Ser Ile Leu Val Leu
329 1          5          10          15
332 Met Gly Gly Leu Ile Trp Phe Leu Phe Gln Arg His Arg Leu His Leu
333          20          25          30
336 Ala Gly Phe Ser Ser Val Arg Tyr Ala Gln Gly Val Asn Glu Asp Glu
337          35          40          45
340 Ile Met Leu Pro Ser Phe His Asp
341          50          55
344 <210> SEQ ID NO: 15
345 <211> LENGTH: 27
346 <212> TYPE: PRT
347 <213> ORGANISM: Mus musculus DEC-205 Leader peptide
349 <400> SEQUENCE: 15
351 Met Arg Thr Gly Arg Val Thr Pro Gly Leu Ala Ala Gly Leu Leu Leu
352 1          5          10          15
355 Leu Leu Leu Arg Ser Phe Gly Leu Val Glu Pro
356          20          25
359 <210> SEQ ID NO: 16
360 <211> LENGTH: 56
361 <212> TYPE: PRT
362 <213> ORGANISM: Mus musculus DEC-205 Transmembrane cytoplasmic domain
364 <400> SEQUENCE: 16
366 Tyr Thr Gly Ile Ala Ile Leu Phe Ala Val Leu Cys Leu Leu Gly Leu
367 1          5          10          15
370 Ile Ser Leu Ala Ile Trp Phe Leu Leu Gln Arg Ser His Ile Arg Trp
371          20          25          30
374 Thr Gly Phe Ser Ser Val Arg Tyr Glu His Gly Thr Asn Glu Asp Glu
375          35          40          45
378 Val Met Leu Pro Ser Phe His Asp
379          50          55
382 <210> SEQ ID NO: 17
383 <211> LENGTH: 41
384 <212> TYPE: PRT
385 <213> ORGANISM: Homo sapiens P-selectin Leader peptide
387 <400> SEQUENCE: 17
389 Met Ala Asn Cys Gln Ile Ala Ile Leu Tyr Gln Arg Phe Gln Arg Val
390 1          5          10          15
393 Val Phe Gly Ile Ser Gln Leu Leu Cys Phe Ser Ala Leu Ile Ser Glu
394          20          25          30
397 Leu Thr Asn Gln Lys Glu Val Ala Ala
398          35          40
401 <210> SEQ ID NO: 18
402 <211> LENGTH: 59

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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 06/26/2006
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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6

VERIFICATION SUMMARY

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L:222 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:507 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:569 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:581 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:595 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:607 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:621 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:633 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:647 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:659 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:673 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:685 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:699 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:713 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:727 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:737 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:749 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:761 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:775 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:787 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:803 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:815 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:
L:827 M:259 W: Allowed number of lines exceeded, <213> ORGANISM: